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# Cornell Countryman

April, 1957

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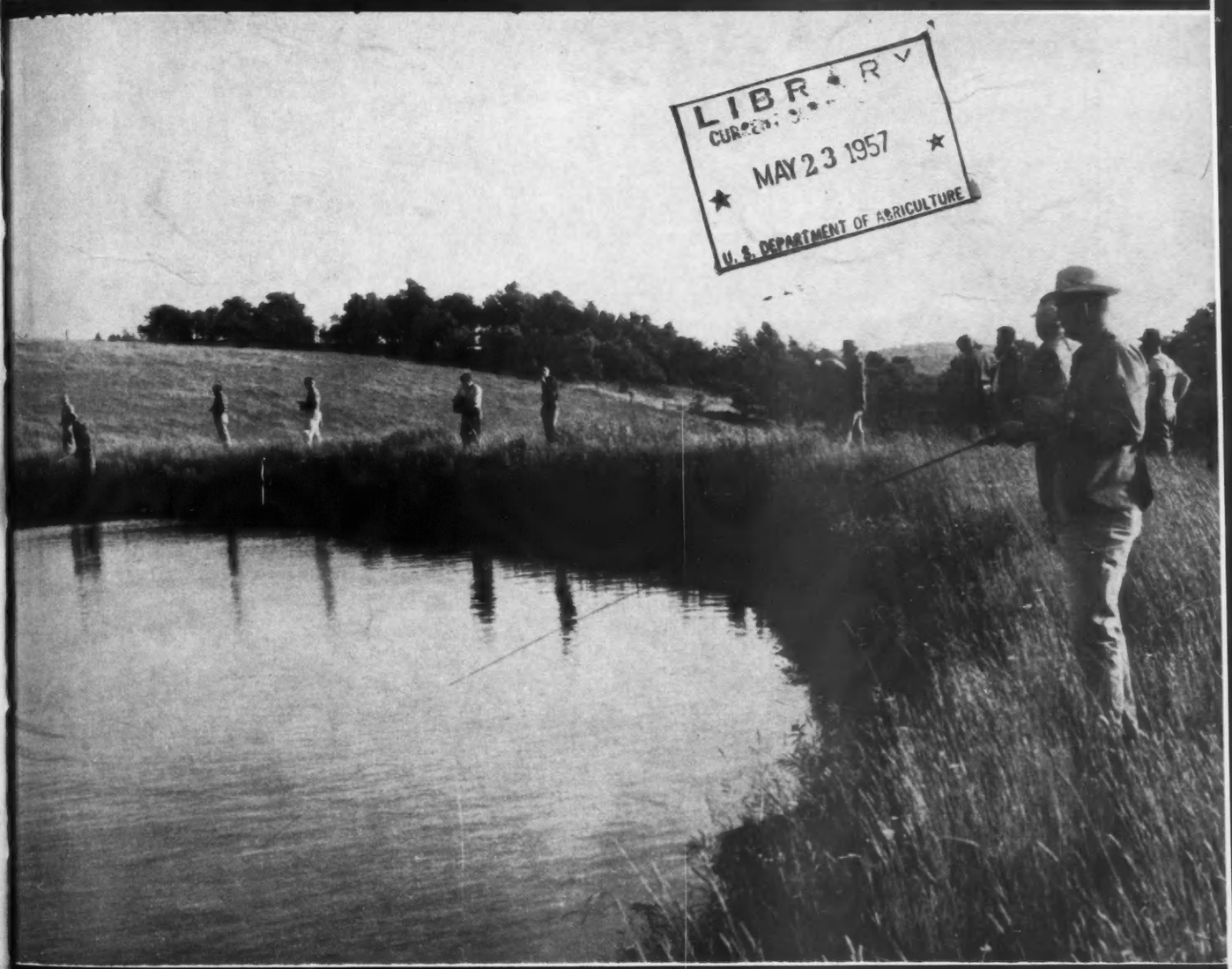


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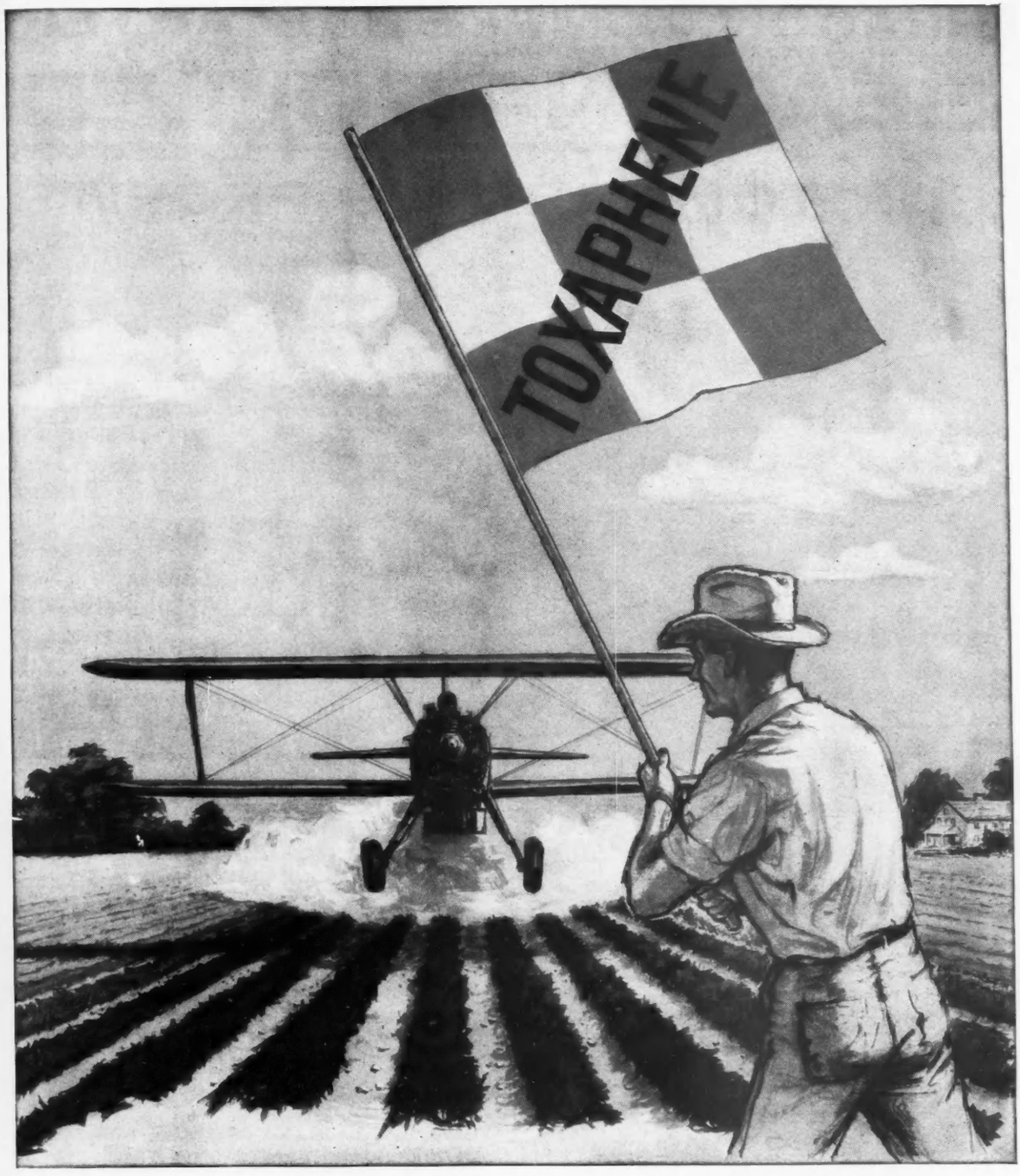


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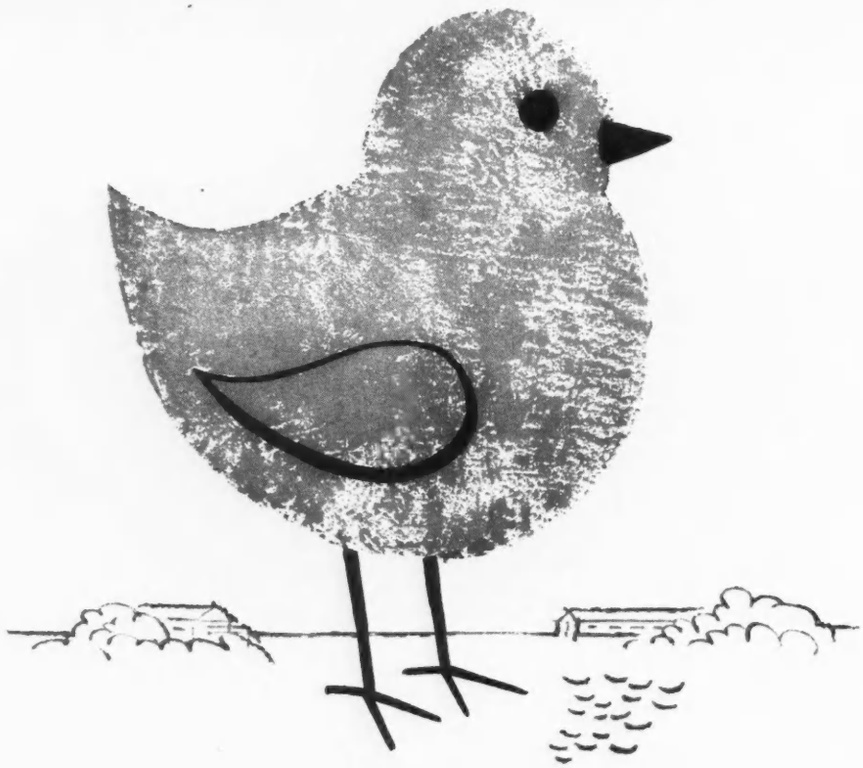

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# Cornell Countryman

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*From the Editor's Desk*

# Busting Out: Cause and Cure

"BUSTING out" is a popular term on campus. Nearly everyone has had a friend who "busted out". Literally, "busted out" means that a student has been forced to leave school because he couldn't make the required grades.

The question, why do students "bust out", has perenially plagued students and college administrators. Could it be a lack of native intelligence? "This is doubtful" say our administrators, for before a student is admitted into the Agricultural College he is carefully screened. High school records are scrupulously examined, and tests, devised by Iowa brains, are administered to the entering students. No, we all have the capacity for college work.

Could it be that those who have "busted out" socialized too much? Have these people spent too much time in the game room? Perhaps extracurricular activities had outweighed studying. These game room, social life activities are certainly some of the reasons people "bust out." However, these are not the only reasons. The real cause of, and the antidote for people "busting out" is found in Roberts, Stone, Wing, Warren and remaining halls. Within the confines of these buildings are found the men with the guiding lamps. These men are advisors and guidance counselors.

Let us not jump the gun by saying that all those who busted were dismissed because of their advisors. However, many of those who did leave could have been saved if proper guidance had existed.

Most of us visit our advisors twice a year; in the fall to make out the spring program, and in the spring to make out the fall term program. Twice-a-year visits are not enough if one is to make the best use of an advisor's guidance. We need to do more than merely hand him a program, composed the night before, get his signature and walk out of his office.

What then, is proper guidance? Proper guidance is more than just infrequent visits to one's advisor. When it is time to plan a program for the following term, we should plan the program with our advisors. We must admit that getting his aid in programming is better than a one night scavenger hunt by ourselves. Aside from programming we are in continual need of advise, whether about girl friends or difficulties with physics.

If we are like the majority of students we need to be pushed into doing something. If our advisor chooses to pick the easy way out he can write us two postal cards a year stating the date our programs are due. This is what leads to student failures. The proper way is to increase the number of student visits to at least one visit every two months. Between these visits he should keep close tabs on each student by requiring monthly progress reports from the administration concerning the student.

However, the problem does not end with the advisor. In order for the advisor to administer the proper guidance, he must be allowed a great deal of time. Under the present program this time is non-existent because of the large number of students per advisor. Plans in the future should be made to reduce the student-advisor ratio to a workable size.

With an improved student-advisor relationship in both academic and personal matters, the number of students who "bust out" would be reduced.

G.P.H.

## Letters to the Editor

# Here's to Farm Practice

To the Editor:

In my youthful innocence I once believed that experience was the best teacher. The only way to learn to do something is to do it. Well, from what I have seen and heard up here at Cornell I think that I am alone in this belief. Case in point—Farm Practice. Nobody seems to like the idea very much, yet the most violent antagonists of the program take the free tuition without batting an eyelash. True we need many professional people in agriculture who aren't going to work farms, but those individuals who are only attracted by the absence of tuition in the New York State College of Agriculture at Cornell University object to working on a farm because they don't care about agriculture.

Everybody hates the farm and everybody has something nasty to say about the farm practice system. "Ridiculous!" "Senseless!" But let's analyze the subject of these attacks. Approximately equivalent to forty weeks' work. Ten weeks a summer for four summers. That doesn't sound like so much to "sacrifice" for a priceless education. To someone going into the field of agriculture the summer work is a valuable part of their training. On the farm you learn to live with farm people and to understand their problems, and nobody who is going into any phase of agriculture can do without this experience.

Take the case of the person who has lived on a specialized farm. In order to get a complete picture, he must spend time on other operations to vary his experience. Each kind of farming has different problems and for a thorough background, each type must be studied.

Anyone who is unwilling to acknowledge the absolute necessity of farm practice is ignoring the purpose of going to an agricultural school. It is my understanding that the role of the Cornell Ag. School is to give a fairly broad education to its students, but first to prepare them to be able to go into *agricultural* endeavors with a solid *agricultural* background. Those who are attracted by the free tuition but who are mainly interested in an Arts School education have no right to complain about working on a farm. If they want to take advantage of the situation, then let them, but as far as complaining, they have nothing to say.

—L.E.

---

**Crimson King**

To the Editor:

Referring to the November *Countryman*, p. 7: "The ad with the catch is common, too. . . . Crimson King Maple . . . the same tree as *Acer platanoides schwedleri* having bright red leaves . . . changing to dark green."

Allow me to set the matter straight:

*Acer platanoides schwedleri*—red in spring turning green in early summer.

*Acer platanoides schwedleri nigra*—patented as "Crimson King" (Plant Patent no. 735.). A selection of Schwedler's Maple found in Europe that keeps "its good red foliage color throughout the entire growing season." "A much better variety than Schwedler's and far superior." (Donald Wyman, *Trees for American Gardens*, New York, 1951, p. 121.)

So you will now see that Crimson King and Schwedler's Maple are not the same plant, and that the advertising for Crimson King is truthful. Certain firms may be selling Schwedler's under the name of Crimson King but this I doubt.

So you see nurserymen aren't such bad guys after all!

C. W. Eliot Paine '58
325 Heath Street
Chestnut Hill 67, Mass.

Mr. Paine's research has proved more thorough than the Editor's. We acknowledge the error and apologize for it.—Ed.


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A few of these include the Western Division of the N.Y.S. Beef Breeders and Feeders Improvement Project, the famous New York Live Stock Show and Sale and others including groups representing swine, sheep and other segments of the livestock industry. Empire acts as marketing agent for the Schuyler County Sheep Breeders' Co-Operative, thus helps operate the widely-known Watkins Glen Lamp Pools. Empire works with hog breeders, the Extension Service and packers in conducting the hog pools now held regularly at the Caledonia Stockyards, to promote meat type hogs.

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# Around the Upper Quad

**Ag-Domecon Council**

Ag-Dom will hold a Leadership Training Workshop at Mount Pleasant on May 4. Discussion groups will be led by Professors Reeder, Cummings and Freeman of the Rural Sociology department. The purpose of the workshop is to increase the effectiveness of upper-campus clubs through better leadership. The discussion groups will be divided into four sections: membership, organization, meetings and programming. Participants will discuss their own problems and the professors will offer suggestions.

This year's council feels that its most outstanding accomplishment has been to increase the effectiveness of upper-campus organizations. People are more aware of the opportunities that are open to them in these clubs, and are participating more actively in them.

**Grange**

Eighty people from the state attended the annual Farm and Home Week Grange meeting, making it a very successful event.

Rec Team has been active, participating in Odessa for Cub Scouts and Grange, and a program in Watkins Glen for the Rural Youth New York State Conference.

April 20-21, the Grange held a retreat at Mount Pleasant which was attended by twenty people. Its events included recreation, a hot dog roast, square dancing and secret work on ritual. Sunday morning an Easter sunrise service was held.

**4-H**

At recent 4-H meetings, speakers have included the IFYE delegate to the Netherlands who told of his experiences there, and a man who explained income tax returns for college students.

Several members of the club attended the Tri-State Extension Conference at Pocono Manor in the Pocono Mountains, Pa. The motto of the conference was Leadership in a Changing World. Meetings and workshops were held to promote good leadership. All who attended the conference felt that it was a valuable experience.

New officers of 4-H are: President—Roy Rolland; Vice-President—Betty Wansink; Secretary—Gerry Jordan; Treasurer—Howard Neilson.

**Conservation Club**

On April 18, in Warren 131 the Conservation Club showed the movie, "The Great Adventure," about wildlife. Guests of the club were members of the Cornell Outing Club and Jordani.

New officers for next year are:

President .....David Mech '58
Vice-president .....Larry Pringle '58
Secretary .....Rosalind Gottlieb '60
Treasurer .....John Satterthwait '60

Some fine spring evening in the near future, the club hopes to be able to go smelt fishing in one of the nearby streams. Wearing hip boots and carrying a bright light and a long net, the fishermen will walk through the water sweeping up these fish. Some time after the trip, they will hold a smelt fry.

# The Orchid: Beauty and Mystery Combined

By ROCHELLE S. LEFFERT '59

THERE is something exotic, mysterious and luxurious about an orchid. This is due in part to its origin in the jungle and its legend of difficult growth and extraordinary beauty.

UNTIL about 30 years ago, orchids were a rich man's hobby, grown especially in English and European greenhouses. It was very expensive to gather and ship these plants from the jungles to the continental greenhouses. In the United States orchids were grown solely to supply the private collections. Due to the rise in standard of living between 1917 and 1927, there was an increased demand for orchids. The public was forced to accept the common types of orchids because attempts at hybridization were relatively limited.

In 1922, a Cornell professor, Dr. Lewis Knudson, developed the Laboratory Method of handling the seeds. This lowered the cost of production immensely and made possible the growth of new and better hybrids. The main problem in the laboratory was seed germination, due to the seeds small size and lack of stored food. Only the vast number of seed offered the botanist leeway in the plant's propagation.

Professor Knudson found that the seeds grew on an agar jelly to which sugar and various nutrients had been added. The mixture is placed in sterilized flasks to ward off harmful organisms. A stopper is put in the flask and the seeds are left to germinate for eight months to a year.

The seedlings are then transplanted to community pots. The change in ventilation from the closed flasks to the community pots can not be too great, for transplanting is an extreme shock to the plants. At this stage of development they are kept at about 70-72°F during the day and about 60°F at night, and require more shade and moisture than full-grown plants. The pots, containing osmund, a fiber, are half full of broken pottery to insure good drainage. The seedlings are left in the pots for six to eight months. Because the fiber in the pots collects toxins produced by the plants, and increasing acidity may affect the young seedlings, they are replanted. Young plants are generally left in community pots for about a year.

A Mexican specie of orchid, Laelia Anceps in a wire basket containing osmund fiber.

AT two to two and one-half years of age, the plants are a good buy for amateurs. Now the seedlings go into their first individual pots which are about two inches in size. The care of these seedlings is easier. The atmosphere is moist, about 70% relative humidity during the day and 90% at night. Because of the shock of transplanting, the plants must be watered lightly two or three times a day and protected from too intense sunlight, which may do damage to the foliage and cause yellowing or burning. The seedlings remain in these pots for about eight months.

They are then transplanted to three or four inch pots where they remain for about a year. Here they receive the same care and the difference in vigor between the plants shows up greatly. After two years they are transplanted to five inch pots. At this stage sheaths may form which might flower. A sheath is a leaf base which has formed a vertical coating around the stem.

The plants must be watered thoroughly, and must be nearly dry before watering. Because orchids were forced to grow on trees in the jungle due to the lush undergrowth, their roots became similar to sponges to absorb rain and dew. Their heavy stems store the collected water. If the plants are not dry, the roots may store too much water and rot. After about seven or eight years of growth and care, the first flower appears.

The plants can be grown in such mediums as Redwood fiber, sphagnum moss, gravel, various composts, and osmundine fiber. They must be shaded enough that their leaves have a yellow color rather than a dark green one, indicating a woody growth.

The most widely grown variety of orchid is the Cattleyas, which is the largest and, to some breeders, the most beautiful of all orchids. This is the type generally used in corsages.

THEY are found in the tropics of Central and South America especially in Venezuela, Brazil and Columbia. The Cattleyas usually bloom once a year, but some bloom twice or more.

Because of the differences in shapes, sizes, manner of growth, coloring, fragrance, and foliage, there are some 15,000 species of orchids. This flower of such complexity and great beauty is one that requires extensive study to be fully appreciated.

# Cornell's Largest Lab

## Arnot Forest: a 4,000 acre classroom for conservation

By MARGARET E. SATURN '57

Identifying fish at Arnot.

A 4,000 acre laboratory serves the Conservation Department of the College of Agriculture at Cornell. The Arnot Forest, 18 miles southwest of Ithaca provides the department with an area for year-round research, teaching, and demonstration.

The Conservation Department administers the Arnot Forest, but the 4,024 acre tract is the property of Cornell. Three major areas of work are carried on by the department in the Arnot; forestry, fish and wildlife management, and soil and water conservation. Many professors have individual experiments in their own fields at the forest.

EXPERimentation continues thruout the year and, although winter is a quiet time in the forest, some work still continues. Christmas trees are cut and taken to the campus to be sold. These trees are part of an experiment to determine which varieties grow best on different types of soils.

Forestry Training at Arnot Forest.

A new addition is a sap house where maple syrup was produced for the first time this spring. About 700 hundred trees, marked with bright blue bands painted around their trunks, were tapped. The Universities of Vermont and Michigan are the only other agricultural colleges in the country which produce maple syrup.

AS spring progresses into summer, many activities become apparent. For example, one plot of brushland is spotted with dead trees. It is part of an experiment in the use of chemicals to kill unwanted brush and trees. Some of the brush was electrocuted, with 8,000 volts.

Within the area are eight farm ponds which are stocked with fish; trout, warm water combinations (large mouth bass and blue gill sunfish), and bait minnows. One of these ponds also serves as a source of water for cattle pastured in the upper part of the Arnot. The pasture is rented to farmers and around 34 head of stock are grazed there each summer.

Down the road from the ponds is a wildlife marsh and shallow pond which is used to study marsh life.

This is only a small sample of the work at the Arnot Forest. Nearly every part of the tract is used for some experiment, except for one valley which has been set aside as a natural wildlife area.

Professors also use the experimental work for teaching; the Arnot is a laboratory for Cornell forestry classes. And each summer several, week-long, conservation training camps are held there to educate future leaders of conservation programs.

THE Conservation Training Camp for Boys, directed by David B. Fales, Associate State 4-H Club Leader, has operated since 1948. Fifty New York State boys are selected yearly to attend this camp. At the Arnot they may choose one of three courses; forestry, soil conservation, or wildlife management.

From reveille at 6:30 a.m. to taps at 10:00 p.m., the boys have a busy schedule. During the week they have 30 hours of intensive instruction in their specific field during the period from 8:00 a.m. to 2:30 p.m. They follow the 4-H adage of learning by doing. In a typical day the soil conservation group might spend a morning with Harry A. Kerr, agronomy extensionist, constructing a diversion terrace which they previously surveyed and laid out.

Another groups of boys under the direction of Gordon Cunningham, extension forester at Cornell, may take a small plot of woodland and decide which trees to cut. Later they will do the actual cutting.

The wildlife group, meanwhile, might be making and setting out a trapline with Harland Brumstead.

Besides the work in his specific field, a boy attends afternoon and evening sessions. These programs are of general interest and deal with such topics as gun safety, woods equipment, and pond construction and management.

Some of the work done by the boys is used for demonstrations for another group, the New York State Teachers Conservation Workshop. 50 teachers from all levels are picked to attend

(*turn to page 14*)

The bottles contain soda flavored beer; the jar powdered juice; and the tubes paste-like cheese.

By RICHARD M. KOSSOFF '58

**Technologists make beer taste like cola and put coffee in tubes.**

# Squeeze Me Another Cup, Please

A multitude of new products and processes developed by food technologists in the last decade are threatening to change the eating habits of millions of Americans. What is more, only the surface has been scratched in this comparatively new science. Within the next ten years you can expect to see a whole host of startling innovations to the food world.

ALMOST any desire of the public for improvement of a particular food will motivate the food technologist to develop a superior product. For example, you might have heard someone say, "I can't drink beer because it's too bitter." Such feelings have been echoed by millions of Americans who want to try a food item but find some fault with a certain characteristic of the particular food or drink. In the case of beer, the frustration of the potential customers has been removed by the creation of a flavored beer. The addition of Collins, Punch, and Cola flavores to the beer might induce many people to try what was once an unacceptable product.

If you think that flavored beer is unique, look at a few other products developed during a relatively silent revolution in tastes. Take food in tubes for example. European manufacturers have packaged mustard in tubes for a number of years. No spoon or implement is needed to remove the contents, and the tube can be carried and packaged very easily. Still another factor is that the mustard can be squeezed out more efficiently and neatly than by the conventional "scrape from the jar" method. These factors have led American food specialists to experiment with a diversified number of tubed foods such as catsup, jelly and canapes.

OF special interest to Cornellians is the work done by Lester Feller '56. While an undergraduate at Cornell, Mr. Feller experimented with various foods which might be sold in tubes. Last spring he announced that he had developed a method of putting instant coffee in tubes. The idea has been both acclaimed and ridiculed by many prominent individuals in the food world. However, if his work does become a reality, you men might say to your spouse in the years to come, "Squeeze me another cup please."

Another product which you can expect to see on the market very shortly is powdered juice. By adding a little water to the powder, whether it be tomato, pineapple or lemon, a delicious juice is formed.

These are only a few of the more publicized advances made in the food field. Actually there are hundreds of others which are just as important. Such products as meat tenderizer, brominated vegetable oils, self-rising flour, and artificial sweeteners and flavoring agents have increased the quality and palatability of the food you eat.

What most of us do not realize about this recent influx of new products, packages and processes is that they are just the beginning of a whole gamut of food innovations.

Much of the work on these new foods is being done only a short distance from the campus, at the Cornell Agricultural Station. Zolan Kertez, world renowned pectin expert, has been experimenting with atomic energy to find out more about this integral component of many fruits. Wilson and Quele have developed a baby food puree from an eastern grown peach. This should save baby food processors thousands of dollars.

IF the success made by food technologists in the past fifteen years is any indication of future success, there is no telling what we may find on our kitchen shelves in the future.

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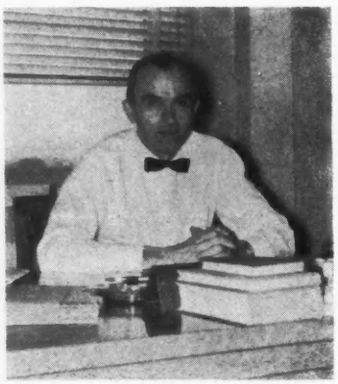
# Professing Personalities

## Professor Freeman; The Students' Choice



By RICHARD ISAACSON '60

ON the dot of the hour Professor Chester H. Freeman walks into the lecture room; one hand in his pocket, the other grasping some books, and a ready smile on his face. Perhaps, it is because of this easy-going nature that Chester Freeman was elected Outstanding Professor last spring by the students of the School of Agriculture.

The Professor is well liked and respected by his students. He gives them full responsibility for a course and finds much reward in seeing the students successfully complete the course. His classroom contains both seriousness and laughter. The mood is controlled by simply raising an eyebrow or softly chuckling.

PROFESSOR Freeman was born on a small dairy farm in Lewis County. He attended high school in Constableville, a small town with a population of 300. In 1934, he embarked upon an active five-year Cornell career which eventually led to the chapter presidency of Alpha Zeta fraternity, student chairmanship of Farm and Home Week, and editor-in-chief of the *Cornell Countryman*.

The professor, remembering his tenure as Countryman editor, relates an almost disasterous event. A staff writer, after spending a summer working in a tomato canning plant, wrote an article describing the contents of tomato juice. The college authorities, in reviewing the article, found a serious flaw, for it contained grounds for a libel suit. Fortunately for all, however, the suit never came.

In 1939, Professor Freeman left Cornell with a Master degree in economics and assumed a position as Assistant County Agent in Cayuga County. His next work was with the New York State Department of Commerce, revising zone laws. In 1941, the professor married a home economics major; seems he's partial to home ec' girls.

THE Second World War saw Professor Freeman wearing the Air Force Wings, awarded him, by some strange coincidence, at Freeman Air Force Base. Before returning stateside, the professor piloted twenty-one missions in the Pacific Theater.

After the war, Professor Freeman began his teaching career at Cornell, and there hasn't been a dull moment since. During the spring, the visual aids course provides much merriment with speeches being given on very active topics. In the past, Extension Teaching courses have included speeches on snakes, using live specimens as subjects, on the clipping of cows, with an actual demonstration given at the time, and on the ancient muzzle-loading guns. The firing of the guns usually has brought several secretaries racing to the scene of the crime, expecting a terrible disaster. The professor, however, enjoys most the speeches on barbecuing, illustrated with mouth-watering free samples.

As each year passes "Outstanding" Professor Freeman continues chatting with his students, taking an interest in their problems, and adding his usual good humor, with the result that each year more and more students come to regard this personality as a true friend. Our thanks to Professor Freeman for all his help and encouragement!

# From the Gourmet's Notebook

## Dishes Italienne Reign The Culinary Throne

By BRENDA L. DERVIN '60

ITALIAN culinary art has reigned over Continental cookery ever since the days the Roman gods savored ambrosia and grape wines on Mount Olympus. Even today gourmets the world over look to this land of beauty and culture for traditional recipes and cooking methods perfected by time.

THE Italian peasants have developed their cooking art around their eating needs of five small meals a day. The morning begins at three with yesterday's soup re-heated. At seven, "polenta," a corn meal mush, is served with cheese. The main meal comes at noon with either meat or fish and oiled vegetables. Tea time in the afternoon brings "polenta," cooled, sliced, and roasted with cheese. Soup along with fresh fruit constitutes supper.

When one thinks of Italy, one thinks of spaghetti Italienne. And rightly so, for the base of Italian cookery lies on "pastas," especially macaroni, spaghetti and ravioli. The Italian method of cooking "pastas" calls for much water and a short boiling time, which is a direct contrast to the revised American method of long cooking with much moisture.

"The "pastas" are only the bland bulky base used under herb-filled sauces, the most renowned of Italian delicacies. It is in their use of garlics, peppers, anchovies, and the various vegetable pastes that the Italians show their true cooking artistry.

Italian cookery extends beyond the "pastas" dishes into numerous other preparations, such as soups. A popular soup of Italy is a chicken consommé filled with small pieces of macaroni, diced green spinach, tomato custard, and grated cheese. Simple preparations, yes, but spicy, delicious results.

Fruits and vegetables, because of their abundance, have a definite consideration in many of the traditional recipes. Fruits are usually eaten only whole and fresh as dessert (the sweeter custards, cakes, and pies are made just for special feasts). Vegetables, on the other hand, have been combined in all types of soups, sauces, and one-dish meals such as stews. Perhaps, the most known of the Italian vegetable recipes is "Florentine Spinach," in reality what is now used by Americans as spinach with white sauce, only richer and spicier. Salads, topped off by a variety of Italian dressings, are popular because of the country's surplus of raw vegetables.

As in the days of Caesar's empire, the Italians still pride themselves upon their preparations of the younger meats which make tender delicate dishes. One unusual meat dish is called "Maiale Unriaco" or "Intoxicated Pork." A loin of pork is seasoned with salt and pepper and browned with two tablespoons of oil in a deep frying pan with cloves and chopped parsley. Red Chianti wine is added, and the meat is simmered; half the wine is absorbed by the meat. When served, the meat is placed on a hot dish, and the sauce over. Result: a savory flaming red lamb dish.

NO summary can be made of Italian cookery without mention of cheeses, which accompany every peasant meal from morning soup to evening soup. The best known cheese of the country is Parmesan. An Italian would consider it a sin to buy grated Parmesan; once grated, the cheese loses it aroma and flavor.

Paralleling the fame of Italian cheese are the Italian wines. Italy has been a wine-producing country from before the founding of Gaul. Ever since this time the ruby-colored Chianti wine has been the most popular of Italy, where wine is not only the "coffee" of the nation, but is used for more dishes than in any other Continental cookery.

Italian cookery is, in reality, relatively uncomplicated. The Italians use simple methods and few ingredients; they depend upon perfection in preparation for their excellent results.

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# More Light Gives More Height

## Increasing a plant's exposure to sunlight often results in extraordinary growth.

By BARBARA A. BIANCO '58

The little boy holds an untreated dogwood of the same age as the larger tree.

WOULD you like your dogwood tree to grow eight feet in one year instead of the normal ten inches? Mr. Sidney Waxman, a graduate student in floriculture at Cornell has developed a new method of speeding the growth of these woody plants, such as the dogwood.

The key to increasing the growth rate is to give the plant artificial light, in addition to the sunlight it receives each day.

This type of research has been done before for flowers like the chrysanthemum. As early as 1686, the length of time a plant was exposed to light, called the day-length, was observed to affect the growth of plants. About 1890, some people tried giving plants extra light with arc lamps to see if the plants would grow more and blossom earlier. Finally, in 1920, it was proved to everyone's satisfaction that the day-length affected the growth of plants.

For example, the chrysanthemum grows all summer, when the days are long. When the days get shorter, the plant stops growing and flowers. Eighty per cent of the people who grow mums for the market use this principle. They give a plant extra light during the winter months, and then decrease the light so the plant blooms. By simulating the growing season several times a year in this way, mums are available at any time.

MR. Waxman has found that the day-length also affects the growth of woody plants, which include shrubs, evergreen and dogwood. By increasing the day-length, you can increase the growth of the plant.

Nurserymen are interested in finding out how quickly these woody plants can be grown, because the more plants they can bring to maturity in a shorter time, the more business they will have.

To investigate the effects of changing the day-length of plants, Mr. Waxman set up an experiment in the Cornell greenhouse. He took several cuttings from the same plant and set them in separate posts. Each pot had its own artificial lighting system. He used 60 watt bulbs and found that this light was just as effective as the sun-light.

Each plant received the same amount of sunlight. Then the amount of extra light each plant got from the 60 watt bulbs was varied. The results showed that as the length of day was increased, the growth rate was increased. By using 18 hours of light per day on a dogwood, it grew eight feet, which is three years growth in one season.

MR. Waxman discovered that not only the amount of light given to the plant is important, but the time of day or night the light is given can cause a radical change in growth. He gave one plant 9 hours of continuous light and then 15 hours of darkness. But in the middle of this long darkness period, he broke the plant's sleep time with one hour of light. That was a total of 10 hours of light. The plant grew as well on this regime as when it was given 15 hours of continuous light. That one hour light break proved to be very important. When the plant was given 12 hours of continuous light, it went dormant and stopped growth completely.

The best time to start this light treatment is in the spring. It should be halted before the frost comes.

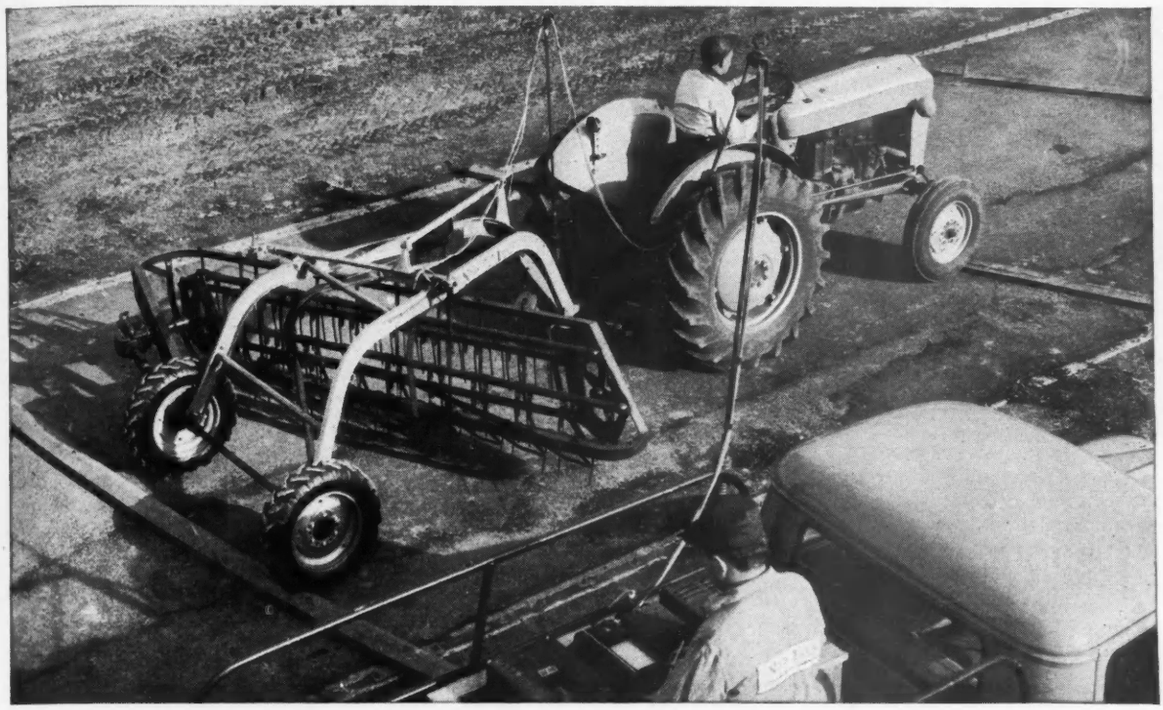
There were several different types of woody plants used in the experiments. Plants that grew the largest upon increased exposure to light were the white and pink flowing dogwood, the Chinese dogwood, the European Cranberry Bush, Weigela, juniper, poplar and orange trees.

Magnolia, red oak and American arborvitae gave a fair response. There was no response at all from lilacs, boxwood or black haw.

Evergreens may respond to increasing the day-length but the results are not as dramatic as with the dogwood and the other plants.

Rooted cuttings of woody plants also respond to changes in the day-length. Mr. Waxman found that flowering dogwood cuttings produced three times as many roots when exposed to light for 18 hours a day, as compared with a 9 hour light exposure per day.

Until now almost all day-length research has been aimed at flower bud initiation and development. Mr. Waxman has shown the importance of day-length to vegetative growth, the dogwood, shrubs and evergreens.



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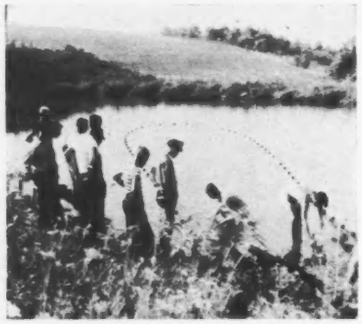
**Arnot Forest** (*from page 8*)



**Catching fish with a seine in Cornell's outdoor laboratory.**

this week-long program, sponsored by the New York State Conservation Council. The program is run jointly by the Rural Education and Conservation Departments under the directorship of Dr. Richard B. Fischer.

Teachers are grouped according to their teaching level and each group has two complete rounds of field experience with the staff during the week. Teachers can see, as well as hear about, the various aspects of wildlife, forest, and soil conservation. In addition, they learn methods for teaching conservation and gain an appreciation for living things.

Another group which has used the Arnot's teaching facilities is the New York State Sportmen's Conservation Workshop. This group meets for a week each summer at different locations throughout the state to study conservation in that area. Two of their six annual summer camps have been at the Arnot.

THE Arnot Forest provides an ideal location for such leadership training camps. It is unique because all three of the major conservation fields can be demonstrated there. The facilities are open to all groups who wish to use them for teaching purposes.

The Arnot Forest is also open as a recreation area. Picnic tables and fireplaces are provided in one grove of trees which overlooks the forest and distant hills and valleys. The Forest is open to hunters, and hunting is good. This is attested to by the fact that 61 deer were taken off the area this past year.

Although the Arnot Forest offers these recreational activities, it is still primarily a laboratory for research, teaching, and demonstration.

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# News from Saturn

By MARGARET E. SATURN '57

NEW YORK State farmers are assured of hi-quality plant food, according to laboratory officials at Geneva where the chemical examination of commercial fertilizers is done.

About 760 samples are tested each year. They are picked up on the open market by agents of the State Department of Agriculture and Markets and sent to Geneva.

Here analyses are run for all plant food materials which the manufacturer guarantees on the label. Deviation from the stated percentages is subject to legal action by the Department of Agriculture and Markets.

---

RED currants are sensitive to chlorine in fertilizers, Geneva experiment workers have found. Only nitrogen and potassium sulfate or nitrogen should be used to avoid marginal scorch of the leaves.

Red Lake currants have larger clusters and are easier to pick than the variety Wilder, but the latter give a larger yield per acre. Heavy pruning will increase cluster size, recent work has shown.

Researchers found that bushes two to four feet apart in rows nine feet from each other gave the best results.

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INJURIES from chemical treatments of seed oats have been studied by analyst Willard Crosier at Geneva. Germination tests show a wide range of injury from mercury fungicides and organic phosphate insecticides.

"Several fungicides, if not properly used, can be injurious to oats," says Dr. Crosier. "Our studies indicate that injury may be due to the volatility and concentration of the fungicide or to the type and duration of storage. The addition of the insecticides, lindane or aldrin, increased the danger of chemical seed injury."

More chemical injury was found in cracked or otherwise damaged seed, the scientist also noted.

# Inquiring Countryman

By EDWARD L. RAZINSKY '60

**Question:**

You have to work on a farm in order to stay in the College of Agriculture. What do you think of farm practice and of what value is it?

**Answer:**

*David Peatfield—Milton, Massachusetts*

"It is necessary to work on a farm to get an agricultural background, but working for practice credits is like selling your soul. You need the credits to stay at Cornell and you have to stay on the farm to get the credits. No matter how badly you are treated or how unfair the wages, you have to work so the boss will give you a good report. All summer you have that report hanging over your head and regardless of personal feelings you grin and bear it."

*Richard Coburn—Rutland, Vermont*

"Working on a farm is a very valuable experience but when it comes to evaluating past experience, a lot of emphasis is put on dairy farming and most other things are neglected. For instance, a boy may have spent his entire life on a poultry farm and be well acquainted with farm life and the farm economy. He has done farm work so he needs no training in that department. During the summer he is probably needed on the home farm and still he has to work on someone else's farm because poultry experience isn't worth much. The only experience of any value is dairy. This standard eliminates the fact that all farming doesn't include cows. It is true that a student of agriculture needs a varied background, but if a boy has lived on a farm and knows about farm life, he shouldn't be made to work any more than, at the most, ten weeks on a dairy farm. After all, even with questioning on the part of the student he can't possibly learn as much about farm life in three or four summers of throwing hay bales around as someone who has spent a lifetime in agriculture."

**Question:**

Because of a lack of experience the city aggies have to work on farms to fulfill a farm practice requirement. With few exceptions they all complain about the long hours and the hard work. Now as an employer, what do you think about the "farm practice farmers" and the value of their farm experience?

**Answer:**

*Mr. Vernon Cator—Wayne County—Poultry farmer*

"If a boy complains that the work is hard, he is right. Farming never was and never will be easy. However, this farm practice is necessary for anyone who is going to the Ag. School. If an individual is going into agriculture, he can't possibly get an insight into farming without working on a farm. There he learns how the farmer faces these problems. If a person is just going to the Ag. School because of the free tuition, the work will seem hard and he won't get anything out of it, but farm practice isn't meant to help these people."


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# Eastman Stage and Rice Debate

## Eastman Stage:

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2. T. S. Wee '58—2nd prize
3. D. P. Paolillo '58
4. P. D. Gellert '58
5. W. M. Gaffney '58
6. H. H. Stoevener '58
7. R. E. Winsor '57

## Rice Debate:

1. George Lamont '57—1st prize
2. Sieglinde Dieken '58—2nd prize
3. Mary Avery '58
4. Ralph Winsor '57
5. Harold Garman '57

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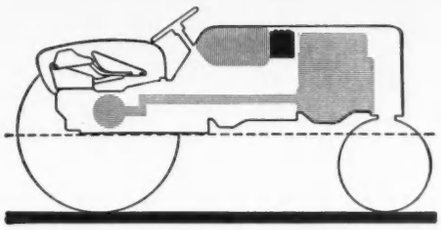

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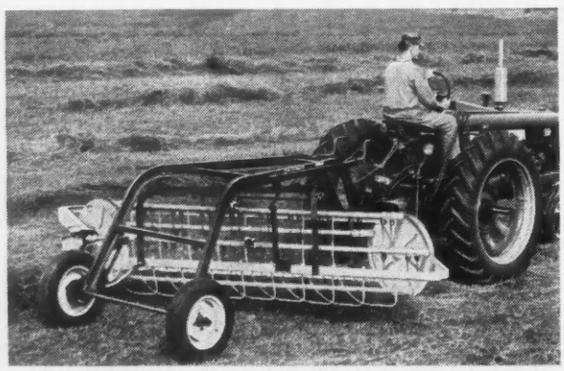

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